

## NOTES &amp; NEWS

Notes on the Status and Distribution  
of *Littorina flava* King & Broderip, 1832

BY

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SEVERAL APPROACHES have been made on the status and distribution of *Littorina flava* (King & Broderip, 1832) (sens. lat.). A definite tendency to consider this taxon as a species, and not as a subspecies, might give us a clue on the determination of its exact distribution pattern along the littoral West Atlantic.

Sharpness of the ridges on the whorls and thickness of the shell were the most distinct criteria on which identification was based. But *Littorina flava* shows a wide variation on these characteristics among the specimens of its extensive latitudinal distribution. When it exhibits sharp ridges and a thin shell, it seems difficult to distinguish it from *L. nebulosa* Lamarck.

Aguayo (personal communication) suggested that these characteristics may be related to the exposure of the animal to rough or calm waters. Today, modern investigations propose *Littorina flava* as a good species, as sufficient anatomical evidence has been compiled (FLORES, 1973; BANDEL, 1974; ALTENA, 1975).

The species has been reported as far south as Uruguay, and is abundant in Brazil, the Guianas, Trinidad and Venezuela. Several specimens from Cuba and Guadeloupe were collected by Aguayo and C. B. Adams respectively (BEQUAERT, 1943). Both of these constituted the only records until the present in the Antilles, seldom suggested to be introduced by man.

I have collected a living adult in the intertidal rocky shore at the south-west coast of Puerto Rico, at the supralittoral level with rough sea. The specimen shows a very thick shell and weak ridges.

Thus, it would seem that the distribution of this species to the antillean latitudes is made through the Lesser Antilles, as to my knowledge no records have been reported from Central America and Mexico. The presence

of *Littorina flava* in Puerto Rico marks an intermediate point between the antillean localities, confirming the possible passage of the species from south to north in the Caribbean Sea.

## Literature Cited

- ALTENA, CONRAD O. VAN REGTEREN  
1975. The marine mollusca of Suriname (Dutch Guiana), Holocene and Recent. Part III. Gastropoda and Cephalopoda. Zool. Verhdl. 139: 1 - 104
- BANDEL, KLAUS  
1974. Studies on Littorinidae from the Atlantic. The Veliger 17 (2): 92 - 114; 5 pls.; 22 text figs. (1 October 1974)
- BEQUAERT, JOSEPH CHARLES  
1943. The genus *Littorina* in the Western Atlantic. Johnsonia 1 (7): 1 - 27
- FLORES, C.  
1973. La familia Littorinidae (Mollusca: Mesogastropoda) en las aguas costeras de Venezuela. Bol. Inst. Ocean. Univ. Oriente 12 (1): 3 - 22

Recent Changes in the  
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ON 1 JULY, 1980, the size of both collection and staff of the Department of Invertebrate Zoology (IZ), California Academy of Sciences (CAS), increased significantly. Responsibility for the dry collection of Recent mollusks was shifted to IZ from the CAS Department of Geology, although location of the collection did not change. Dr. Barry Roth, Senior Scientific Assistant in charge of that collection, was simultaneously transferred from Geology to Invertebrate Zoology. The rationale for Geology's custodianship of the dry mollusks was that hard parts, such as shells and radulae that are most frequently preserved and therefore are the subjects of paleontological research, should be housed together with fossil material to facilitate